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BACKGROUND AND CURRENT STATUS OF IR PROGRAM AT
NAVSTA ROOSEVELT ROADS AND NAF VIEQUES

BACKGROUND

An Initial Assessment Study (IAS) of NAVSTA Roosevelt Roads and NAF Vieques was conducted in 1984. Fifteen sites warranted further investigation in a Remedial Investigation study. A first round of sampling and analysis was completed in May 1986, and a second round was completed in February 1987. Environmental Science and Engineering (ESE) conducted the Remedial Investigation work.

Three sites were investigated at NAF Vieques. These sites are listed below:

<u>Site Number</u>	<u>Name</u>
1	Quebrada Disposal Site
2	Mangrove Disposal Site
3	IRFNA/MAF-4 Disposal Site

At NAVSTA Roosevelt Roads, twelve sites were investigated in Round 1. These sites are listed below:

<u>Site Number</u>	<u>Name</u>
5	Army Cremator Disposal Area
6	Langley Drive Disposal Site
7	Station Landfill
8	Drone Washdown
9	PCB Disposal, Dry Dock Area
10	Building 25 Storage Area
12	Tow Way Road Fuels Farm
13	Tanks 210 to 217
14	Ensenada Honda
	Shoreline and Mangroves
15	Substation 2
16	Old Power Plant, Bldg. 38
18	Pest Control Shop and Surrounding Area

Of these twelve sites, two of the sites (Sites 9 and 14) are no longer being investigated because the Round 1 data indicated the absence of any significant contamination at these sites. In addition, the investigations at two of the sites (Sites 15 and 16) were accelerated as contamination at these sites was fairly well defined. Consequently, ESE has submitted three reports: A Data Evaluation of the First and Second Rounds of Sample Collection and Analysis, A Remedial Action Alternatives Analysis for Site 15, and A Remedial Action Alternatives Analysis for Site 16. Their recommendations for each site are listed below.

SITE RECOMMENDATIONS

NAF VIEQUES

QUEBRADA DISPOSAL SITE, SITE 1

Metals found in groundwater but not significantly over background levels. No significant contamination in soil or sediment samples. No further work recommended.

MANGROVE DISPOSAL SITE, SITE 2

No significant contamination detected in soil, surface water, or sediment samples. No further work recommended.

IRFNA/MAF-4 DISPOSAL SITE, SITE 3

Total zinc was the only constituent detected in groundwater, but below National Secondary Drinking Water Standard. Therefore, no further work recommended.

NAVSTA ROOSEVELT ROADS

ARMY CREMATOR DISPOSAL AREA, SITE 5

Some contaminants found in sediments, but levels detected were generally low and for isolated samples. Metals were found in the surface water but were not considered to be significant. Significant levels of thallium and copper were detected in the groundwater but only in the Round 1 investigation, and only in one well. Because these data do not indicate persistent and widespread contamination, no additional work is recommended.

LANGLEY DRIVE DISPOSAL SITE, SITE 6

Elevated lead levels found in the soil but not high enough for the soil to be classified as a hazardous waste. Relatively high (>200 ppb) lead concentrations were found in all three surface water samples in Round 1 but not in Round 2. Resampling of the surface water is recommended. The groundwater sample collected upgradient from Site 6 had elevated lead and low levels of organics present. Therefore, resampling of this well is recommended, as well as a focused environmental assessment of the area upgradient of this well to determine other possible sources of contamination.

STATION LANDFILL, SITE 7

No significant contamination of the soil was detected (only low levels of oil and grease). Only very low and sporadic concentrations of organic compounds were detected in the groundwater. Some elevated levels of some metals were detected but only on a sporadic basis suggesting that a significant source of metals contamination does not exist at Site 7. No further work at Site 7 is recommended.

DRONE WASHDOWN, SITE 8

Oil and grease were found in sediment samples and low levels of oil and grease and volatile organic compounds were found in the surface water samples. However, the data indicates that the constituents of concern are coming from the hanger area (Building 200) and not Site 8. Because the contaminant levels are low, no additional work is recommended.

PCB DISPOSAL, DRY DOCK AREA, SITE 9

No PCBs were detected in any of the surface water and sediment samples collected at Site 9. No additional work is recommended.

BUILDING 25 STORAGE AREA, SITE 10

Only very low levels of organic compounds were detected in the groundwater. Some elevated levels of metals were detected but they were sporadic suggesting that a significant source of metals contamination does not exist at Site 10. No further work is recommended.

TOW WAY ROAD FUELS FARM, SITE 12

Concentration data for the surface water and sediment samples collected from Ensenada Honda directly offshore from Site 12 do not indicate the presence of any of the constituents of concern at levels beyond those inherent to bodies of water subject to shipping activities. However, elevated levels of benzene and toluene were detected in one groundwater monitoring well, and fuel contamination was detected in the soil in the upper and lower section of Site 12 in the drainage way between the tanks in the tank farm. Therefore, additional soil and groundwater sampling is quantify the degree and determine the extent of contamination in the soil and groundwater. This site is being deferred to the Navy Underground Storage Tank Program for further work.

TANKS 210 TO 217, SITE 13

No constituents of concern were detected in the surface water and sediment samples collected at Site 13 at significant levels. Significant levels of fuel-derived constituents were detected in the groundwater samples collected from Site 13. To determine the extent of the fuel contamination detected at Site 13 sixteen soil borings and three additional monitoring wells are recommended to be sampled for total petroleum hydrocarbons, benzene, toluene, xylene, and lead.

ENSENADA HONDA SHORELINE AND MANGROVES, SITE 14

Although elevated levels of oil and grease were detected in the sediment samples collected from Site 14, the mangroves which sustained damage from past oil spills in Ensenada Honda showed signs of recovery. No other constituents of concern were detected in samples of surface water and sediment collected from Site 14 in significant levels. Consequently, no further work is recommended.

PEST CONTROL SHOP AND SURROUNDING AREA, SITE 18

Several pesticides were detected in the surficial soils in the area adjacent to Building 258, the former pest control shop, at Site 18. Chlordane and other pesticides were also detected in the surface and sediment samples collected from the drainage ditch which conveys runoff from Site 18. A low concentration of DDD,PP' was detected in one groundwater well, but no pesticides were detected in the other two monitor wells at Site 18. A preliminary risk assessment of the pesticide contamination is recommended to determine if the levels of pesticide detected in the soils, surface water, sediment, and groundwater pose a threat to human health and the environment. The results of this assessment will allow the determination of the need for further investigation of Site 18.

OLD POWER PLANT, BUILDING 38, SITE 16 and SUBSTATION 2, SITE 15

PCB-contaminated soil exists at both these sites. Four remedial alternatives have been developed which vary in the degree to which they address the PCB contamination at the sites. None of the alternatives include any action relative to the PCB contamination within the already fenced areas since the fences restrict the public's access to these areas. The alternatives involve fencing the area, excavation and incineration of the contaminated soil, or capping the sites. The alternatives need to be evaluated in terms of elimination of human exposure pathways, cost, and reduction in toxicity or volume of the contamination.

**All of the above recommendations are those of ESE and have not been thoroughly reviewed by LANTDIV or the activities and are subject to change.

CURRENT STATUS

Three reports submitted by ESE need to be reviewed by LANTDIV, NAVSTA Roosevelt Roads, and NAF Vieques. Then a change order needs to be awarded for ESE to respond to the Government's comments, revise their reports to reflect changes in the IR program, and to provide support at the Technical Review Committee (TRC) meetings. After their reports are finalized and are ready to be reviewed by the TRC, the TRC needs to be formed. Therefore, NAVSTA Roosevelt Roads will need to contact EQB and local communities for their representatives to the TRC.